FIG. 1
(PRIOR ART)

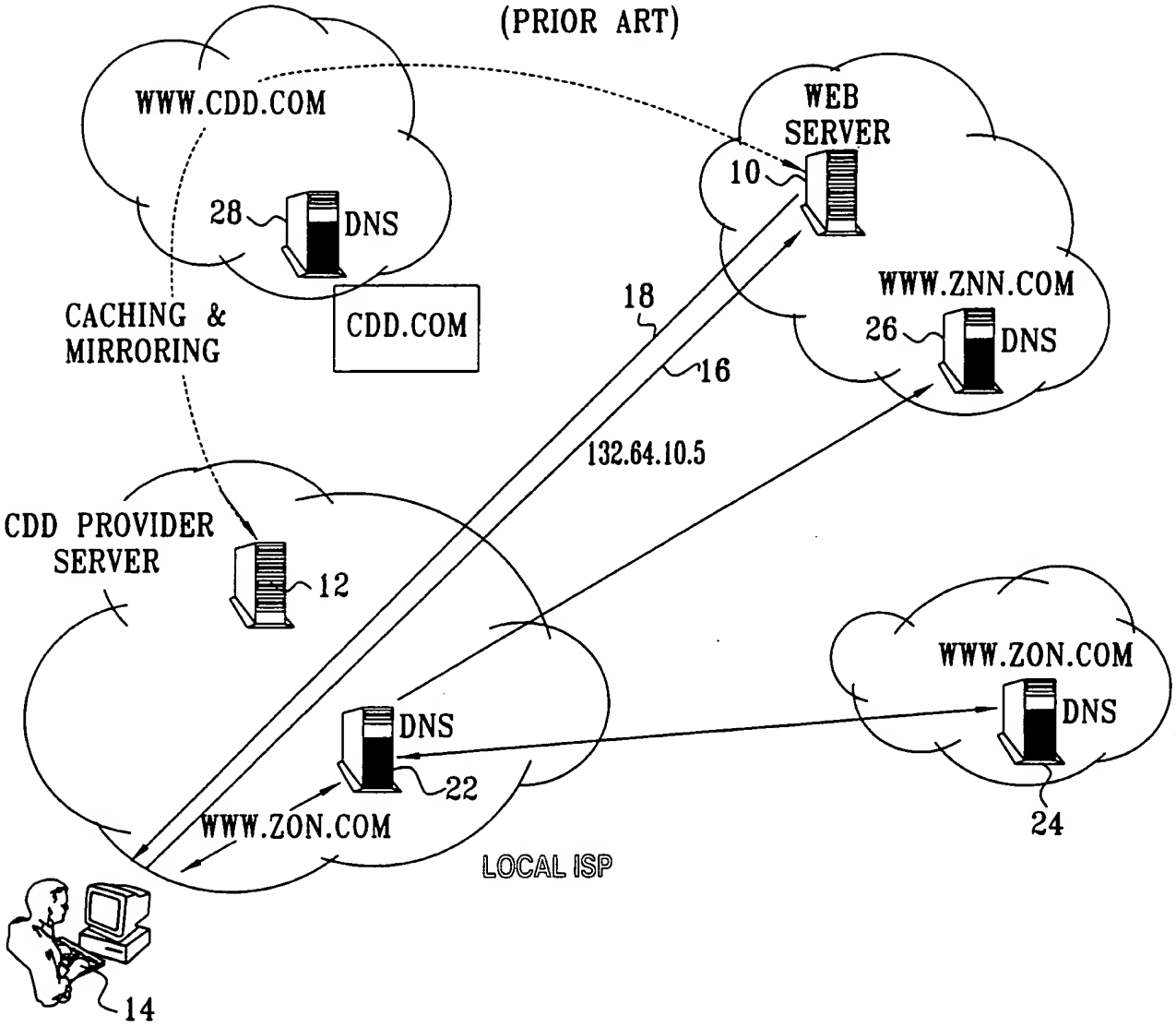


FIG. 2
(PRIOR ART)

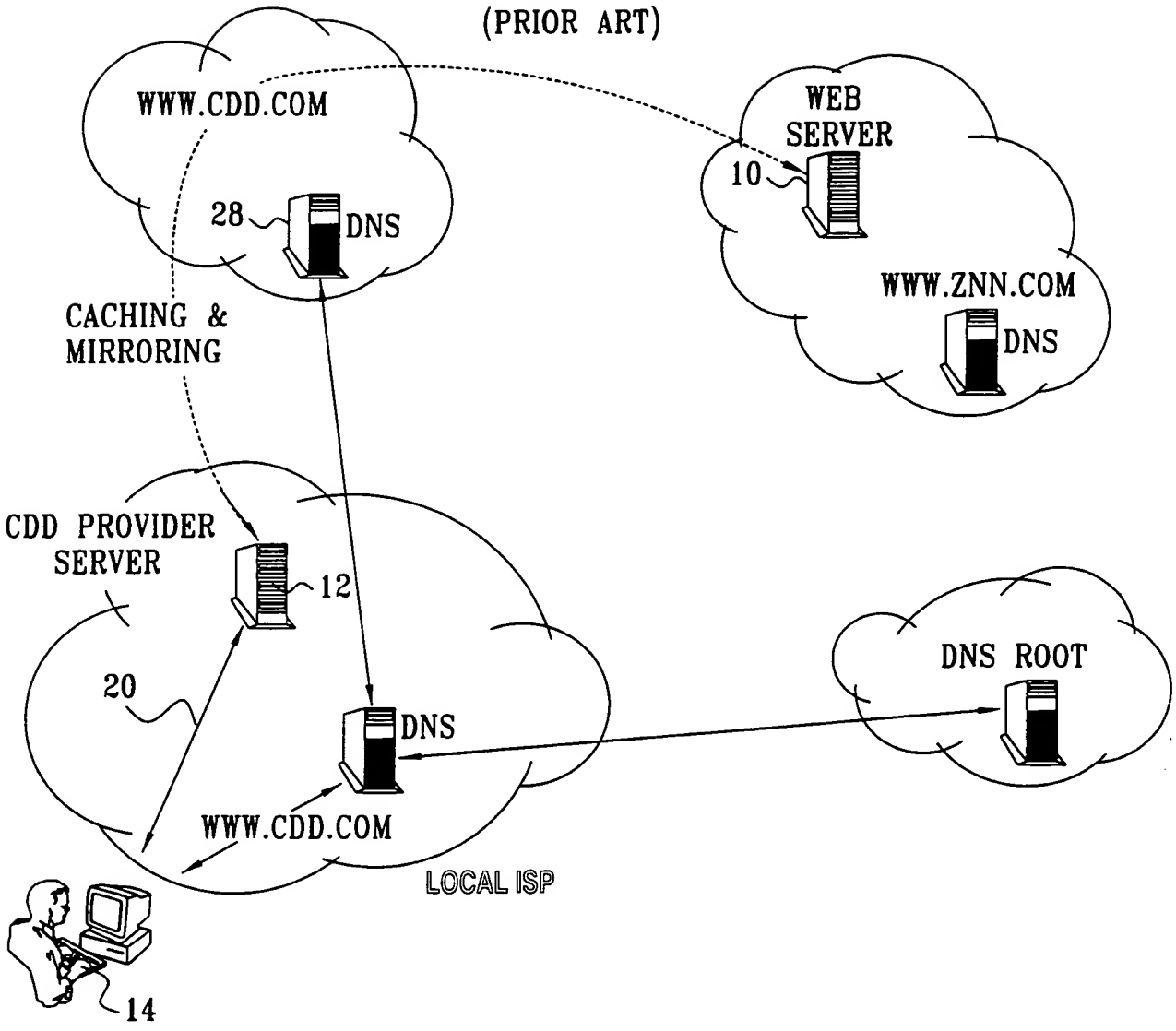


FIG. 3

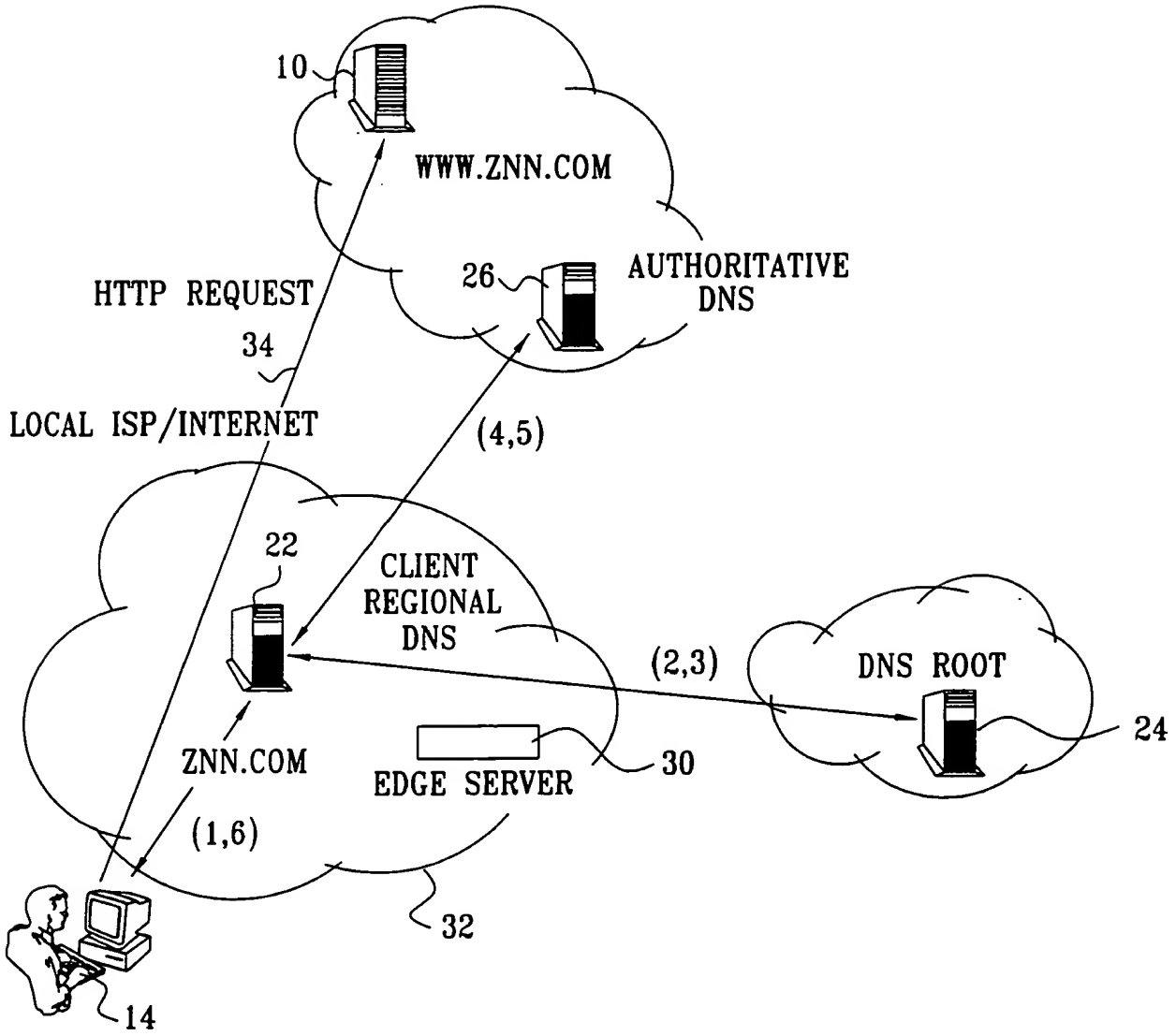

10
WWW.ZNN.COM
26
AUTHORITATIVE DNS
HTTP REQUEST
34
LOCAL ISP/INTERNET
(4,5)
22
CLIENT REGIONAL DNS
(2,3)
DNS ROOT
24
ZNN.COM
EDGE SERVER
30
(1,6)
32
14

FIG. 4

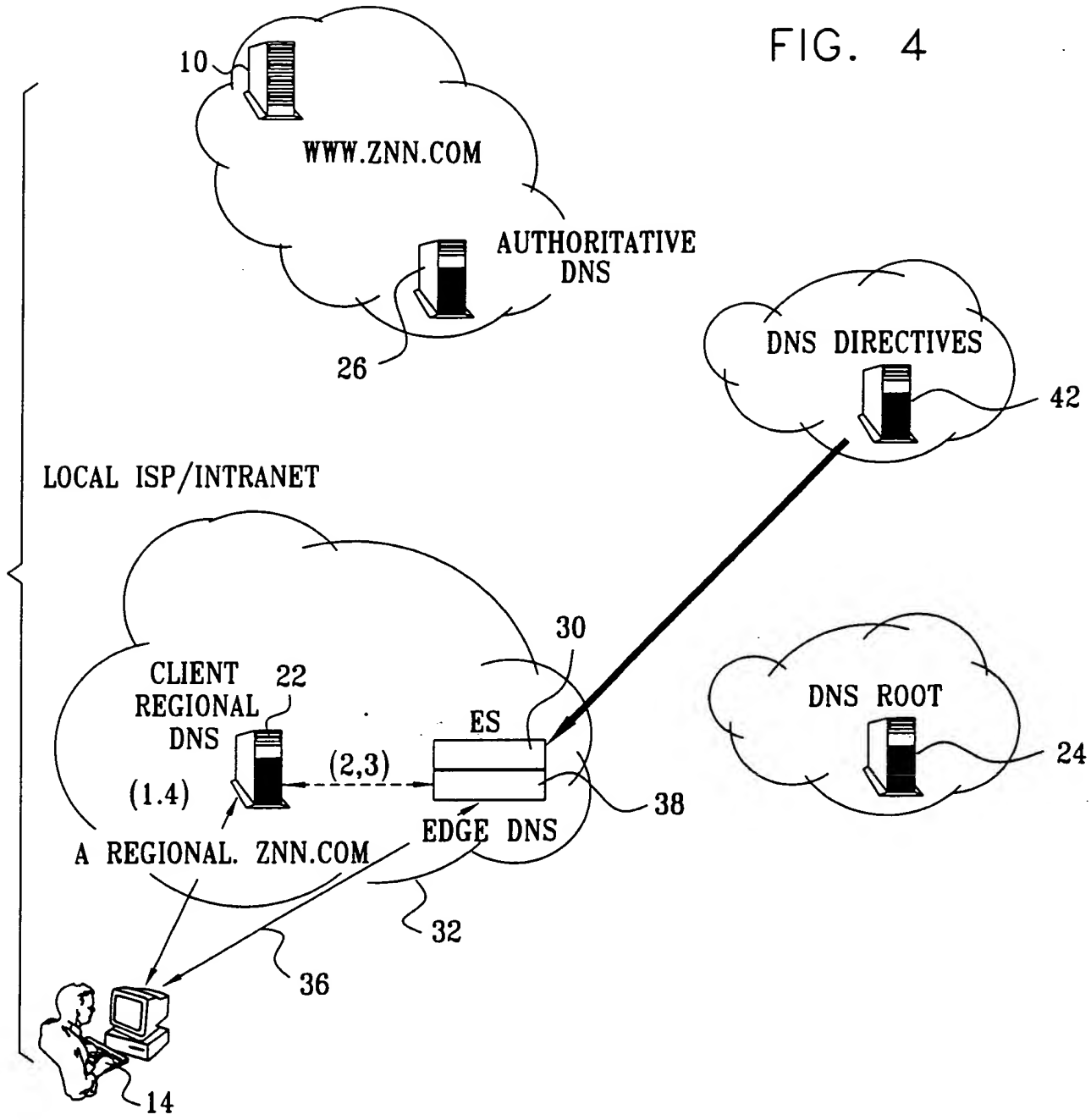
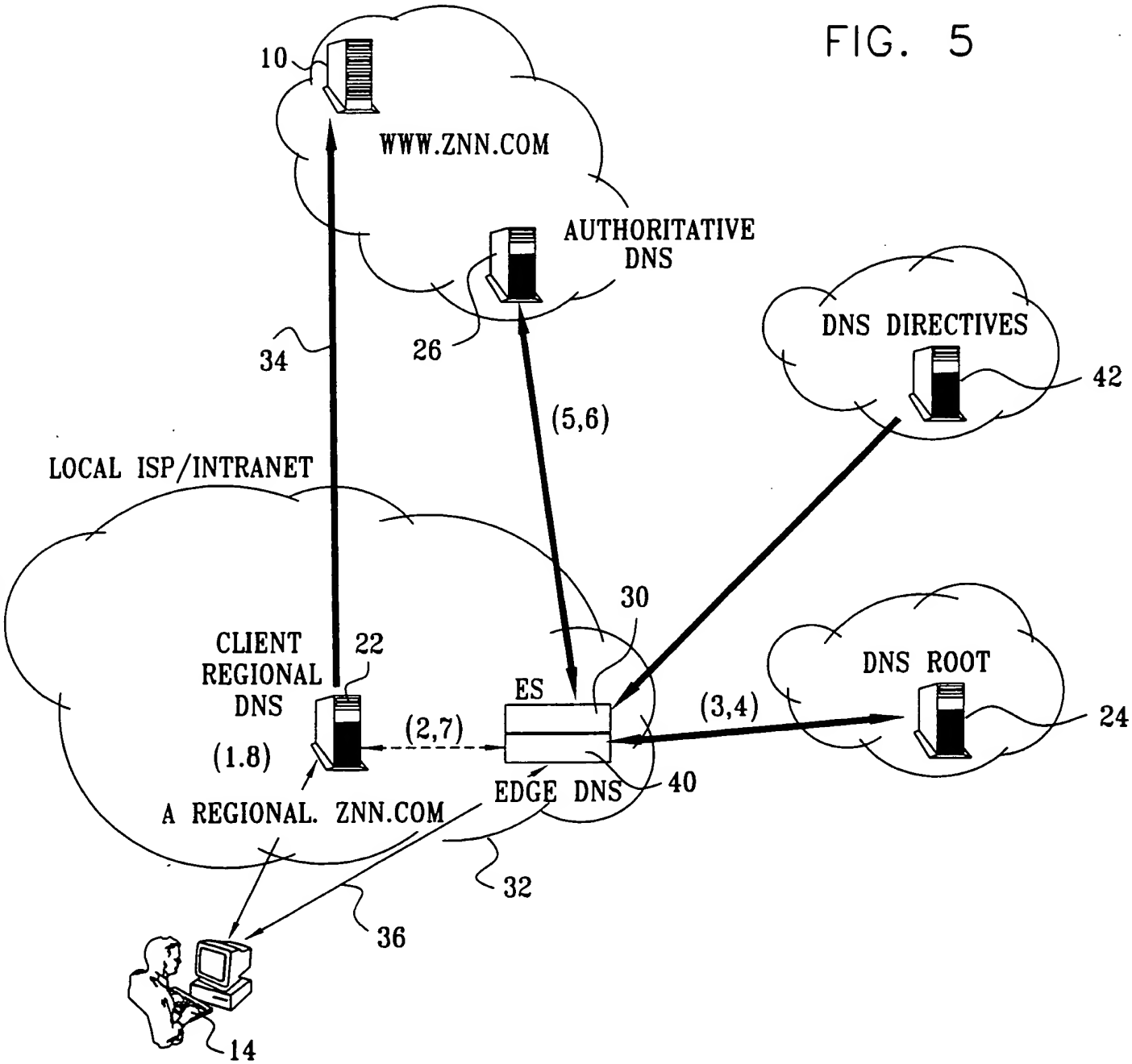

10
WWW.ZNN.COM
AUTHORITATIVE DNS
26
DNS DIRECTIVES
42
LOCAL ISP/INTRANET
30
CLIENT REGIONAL DNS
22
ES
(2,3)
(1.4)
38
EDGE DNS
A REGIONAL. ZNN.COM
DNS ROOT
24
32
36
14

FIG. 5


10
WWW.ZNN.COM
AUTHORITATIVE DNS
26
34
(5,6)
DNS DIRECTIVES
42
LOCAL ISP/INTRANET
30
CLIENT REGIONAL DNS
22
(1.8)
(2,7)
ES
(3,4)
DNS ROOT
24
EDGE DNS
40
A REGIONAL. ZNN.COM
32
36
14

PCT/US2001/022620

FIG. 6

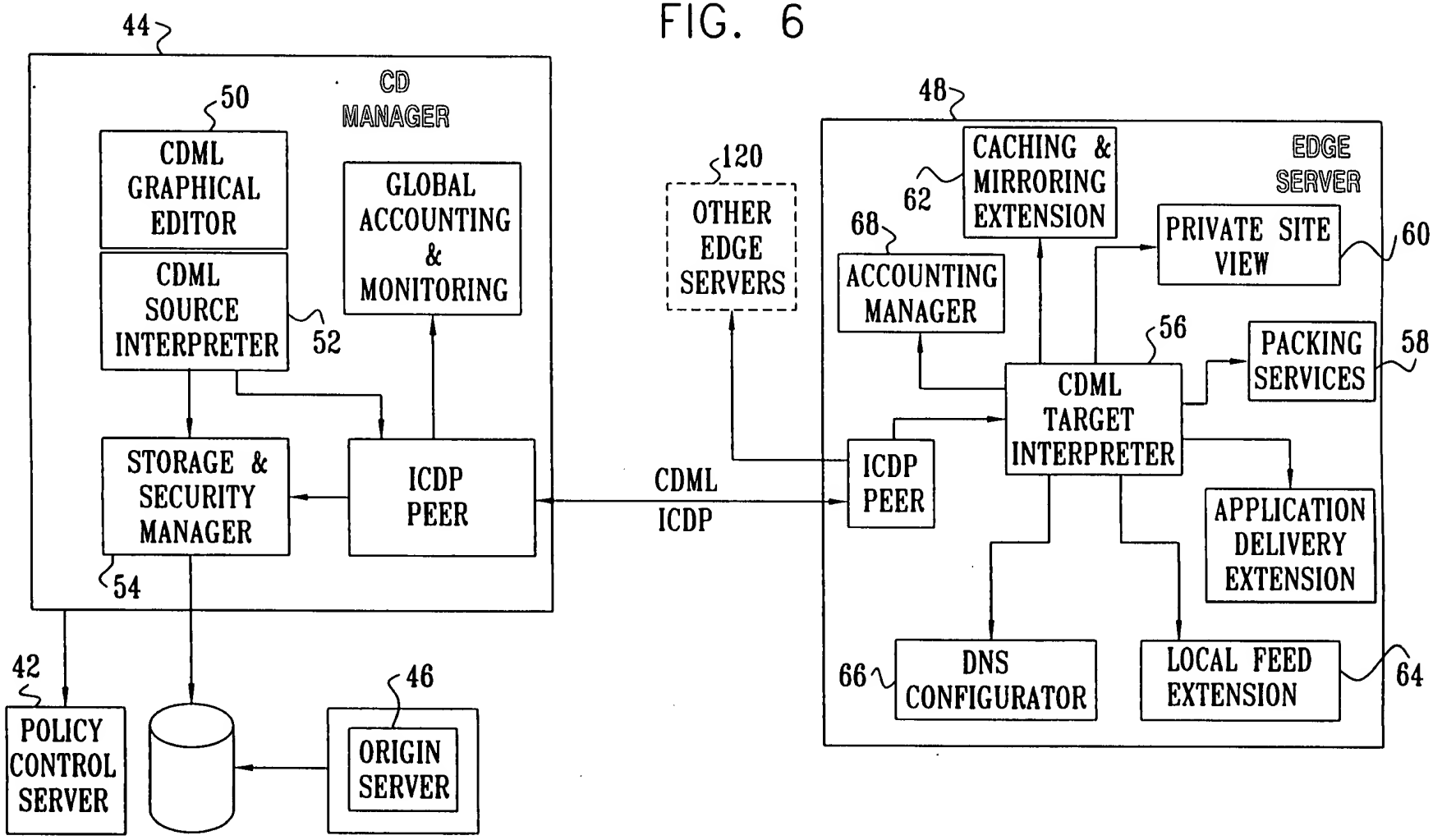
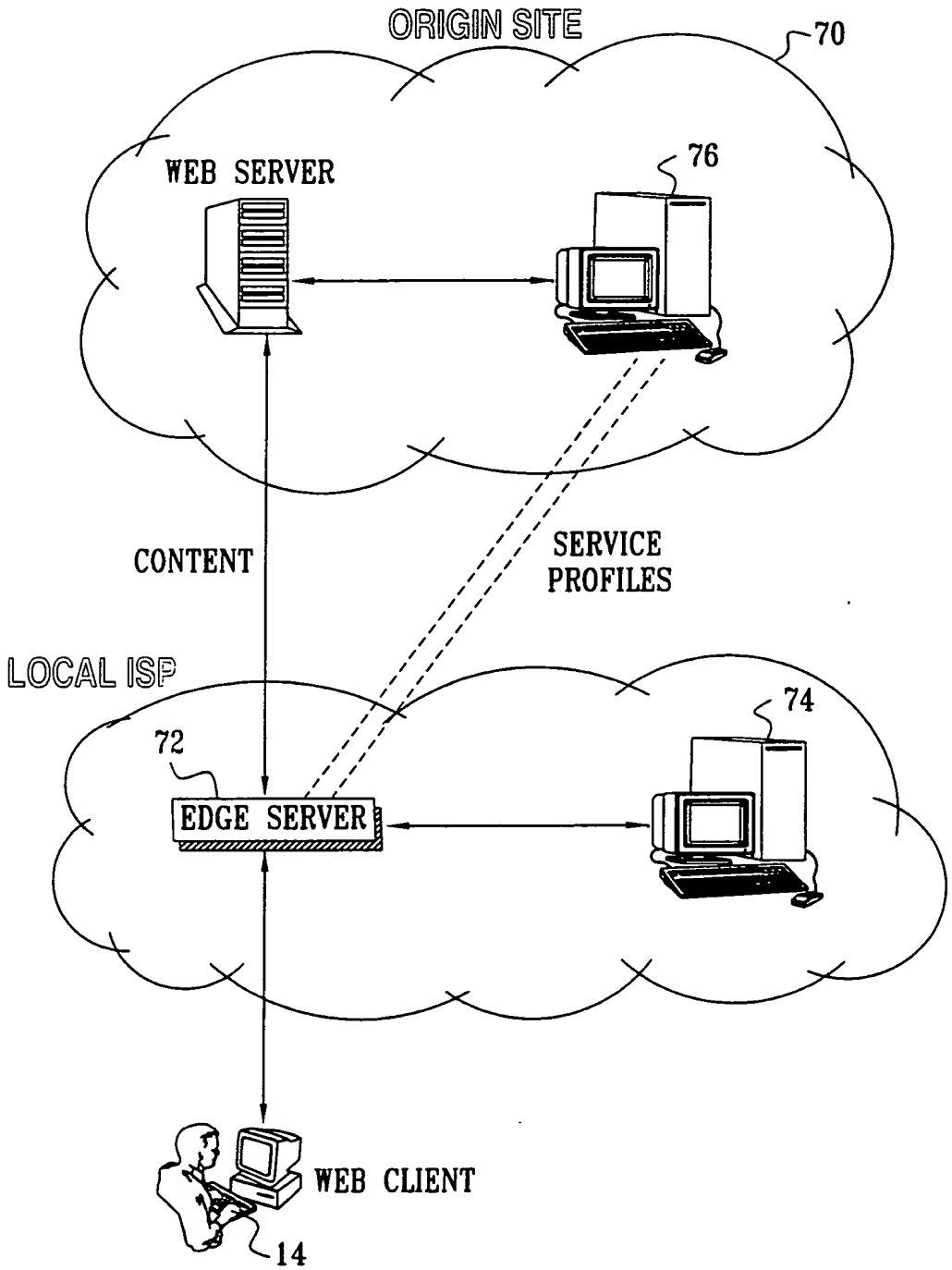


FIG. 7


ORIGIN SITE
70
WEB SERVER
76
CONTENT
SERVICE
PROFILES
LOCAL ISP
74
72
EDGE SERVER
WEB CLIENT
14

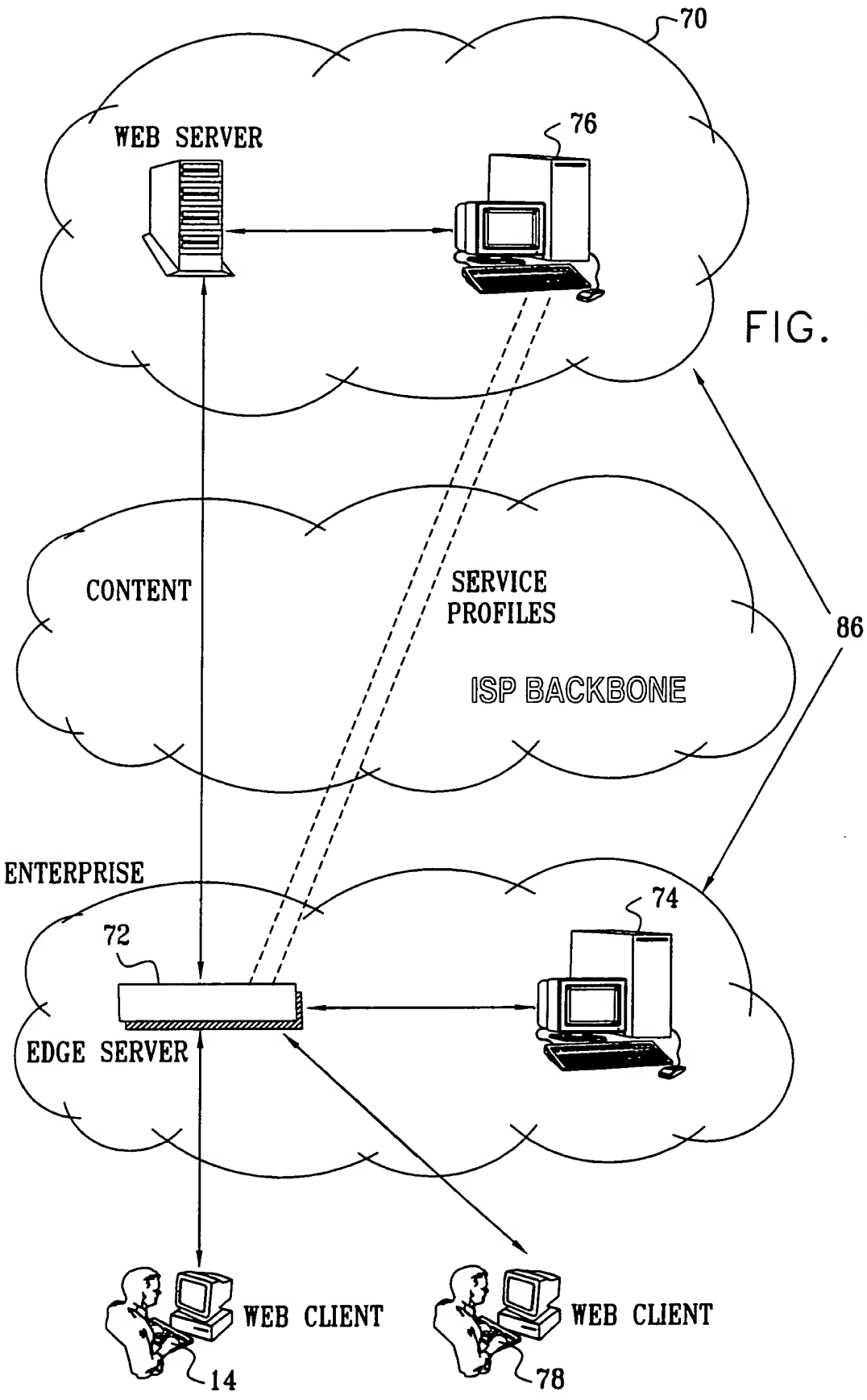

70
WEB SERVER
76
CONTENT
SERVICE
PROFILES
ISP BACKBONE
86
ENTERPRISE
74
72
EDGE SERVER
WEB CLIENT
WEB CLIENT
14
78

FIG. 8

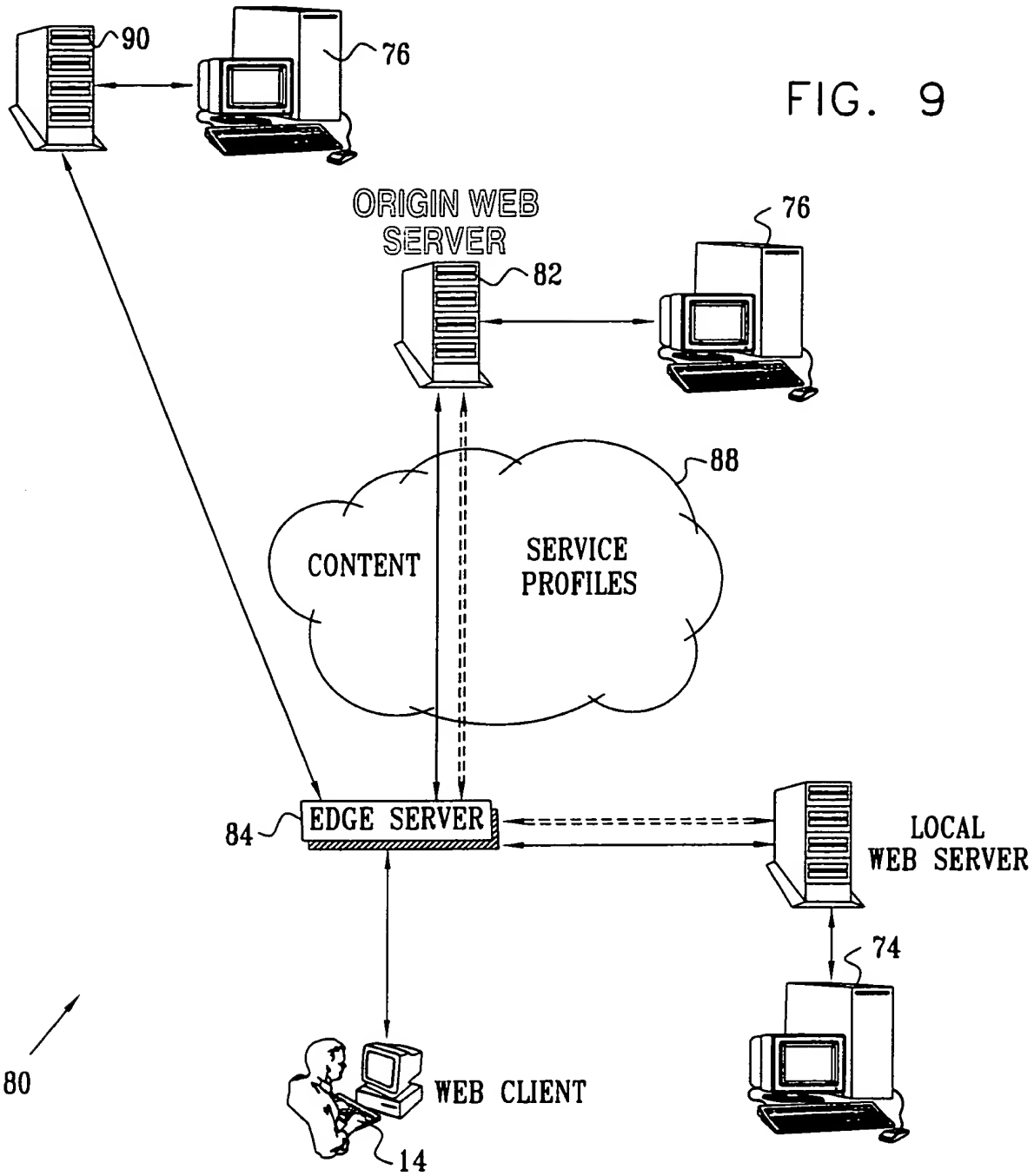

90
76
ORIGIN WEB SERVER
82
76
88
CONTENT
SERVICE PROFILES
84
EDGE SERVER
LOCAL WEB SERVER
74
80
WEB CLIENT
14

FIG. 9

FIG. 10

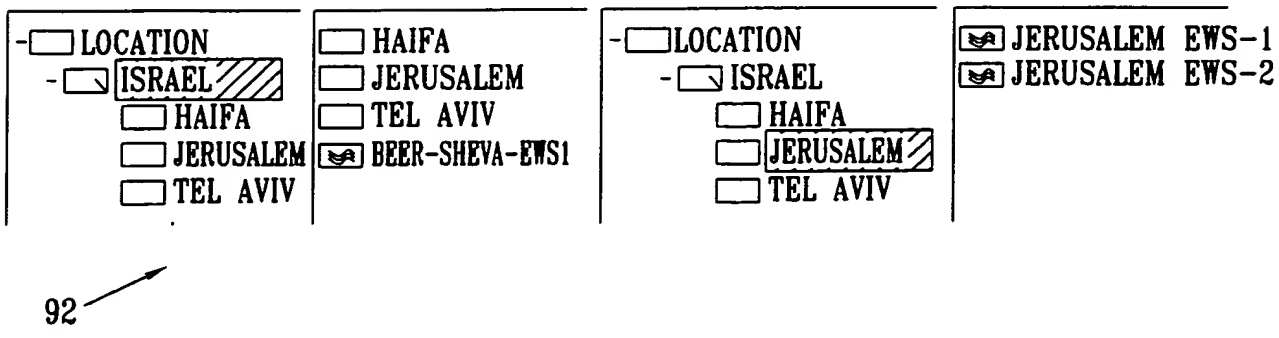

LOCATION
ISRAEL
HAIFA
JERUSALEM
TEL AVIV
HAIFA
JERUSALEM
TEL AVIV
BEER-SHEVA-EWS1
LOCATION
ISRAEL
HAIFA
JERUSALEM
TEL AVIV
JERUSALEM EWS-1
JERUSALEM EWS-2
92

FIG. 11

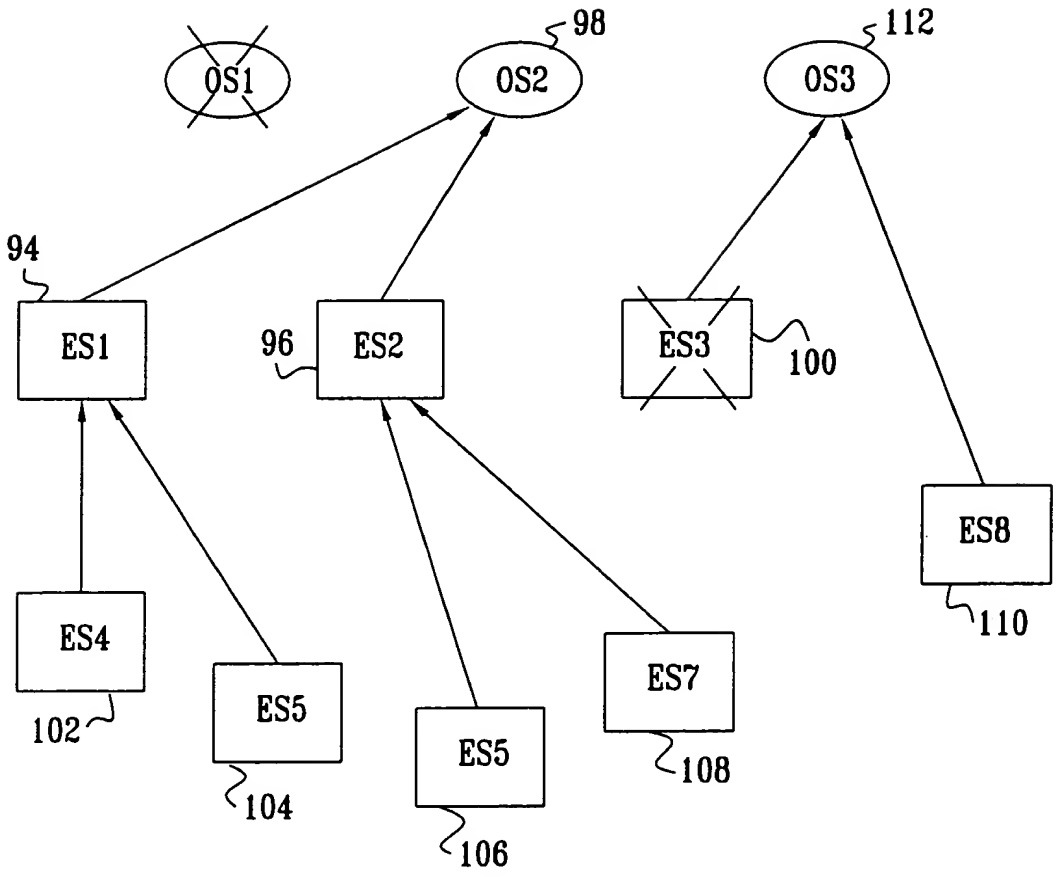
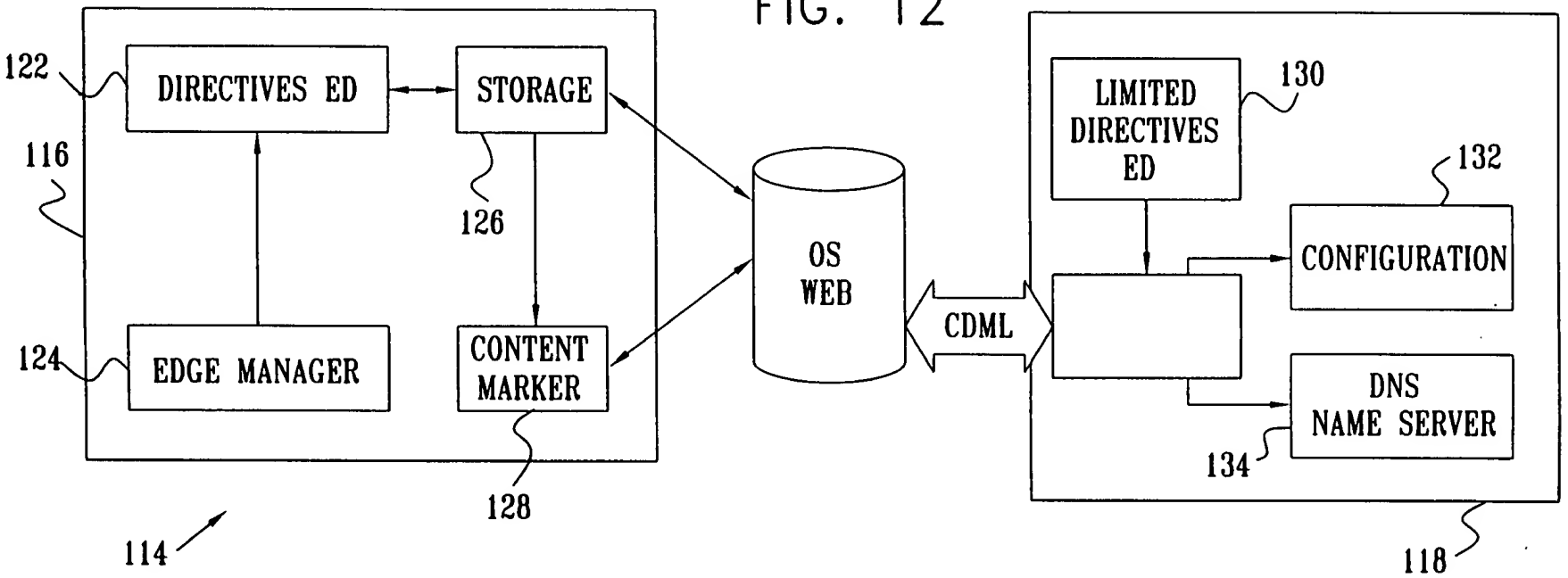

OS1
OS2
98
OS3
112
94
ES1
96
ES2
ES3
100
ES4
102
ES5
104
ES5
106
ES7
108
ES8
110

FIG. 12


122
DIRECTIVES ED
STORAGE
116
126
OS
WEB
CDML
LIMITED
DIRECTIVES
ED
130
132
CONFIGURATION
124
EDGE MANAGER
CONTENT
MARKER
DNS
NAME SERVER
134
128
114
118

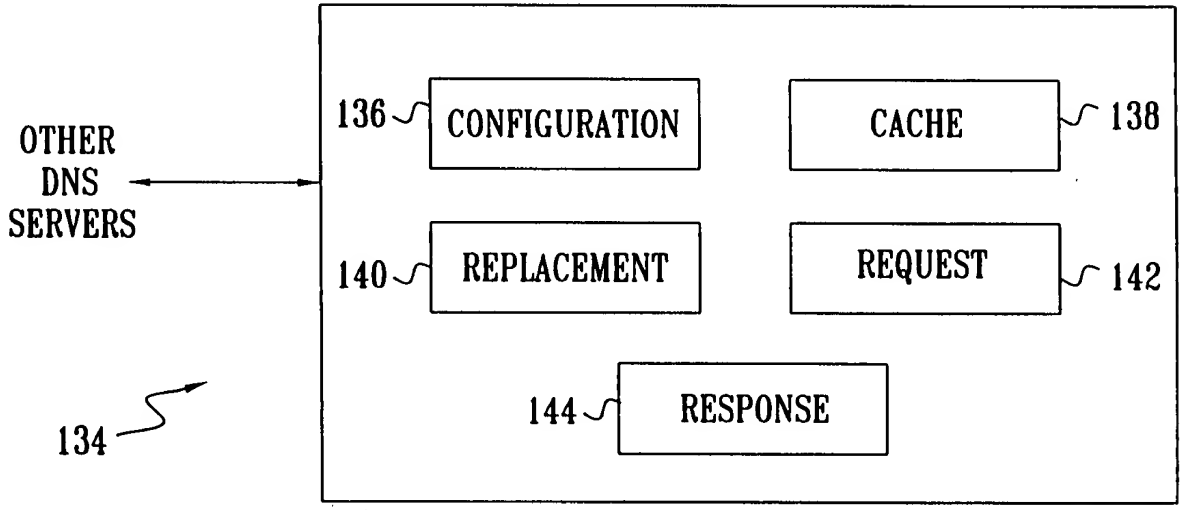

OTHER
DNS
SERVERS
136
CONFIGURATION
CACHE
138
140
REPLACEMENT
REQUEST
142
144
RESPONSE
134

FIG. 13

Posted: 2/6/2002

FIG. 14

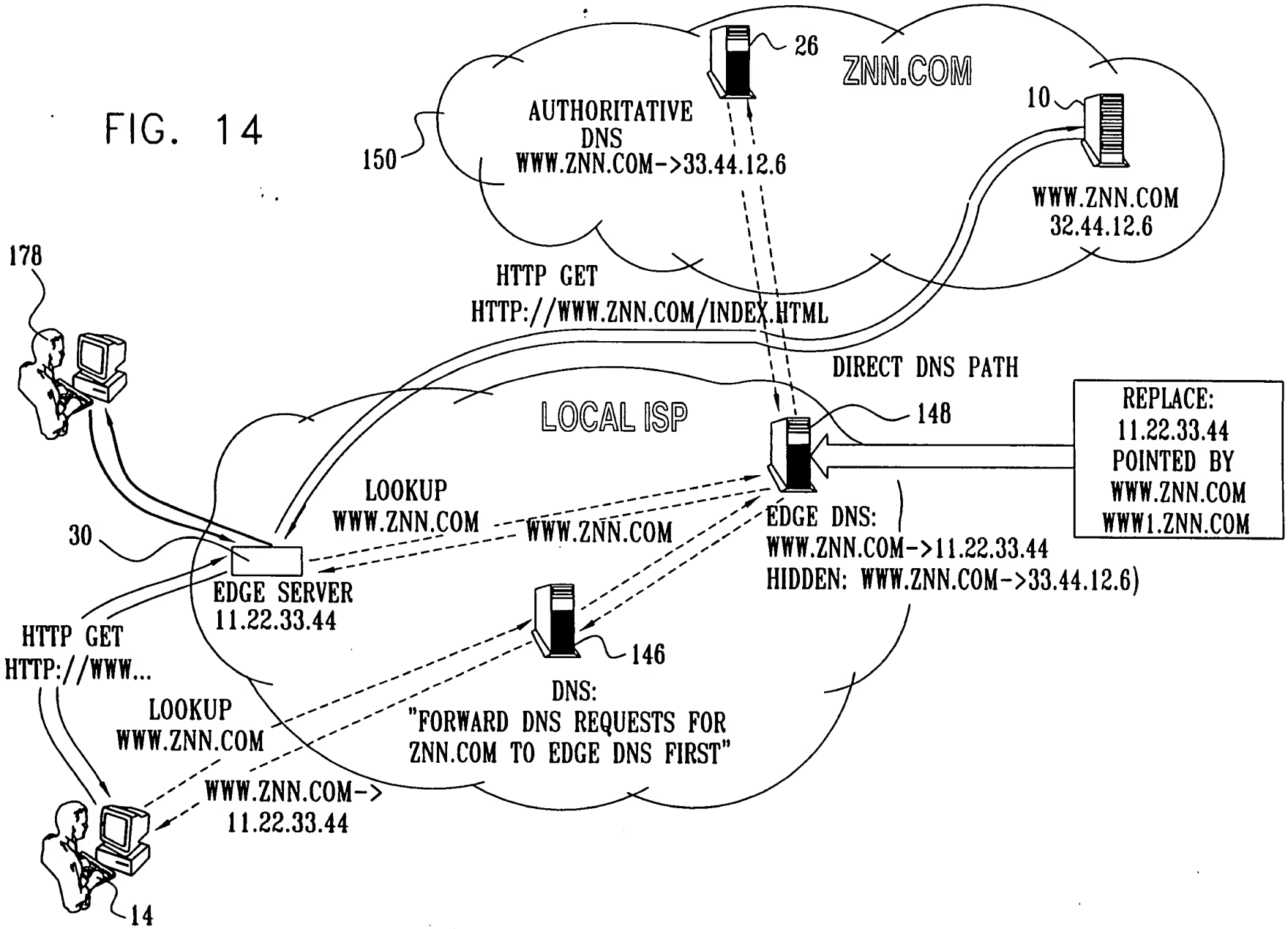


FIG. 15

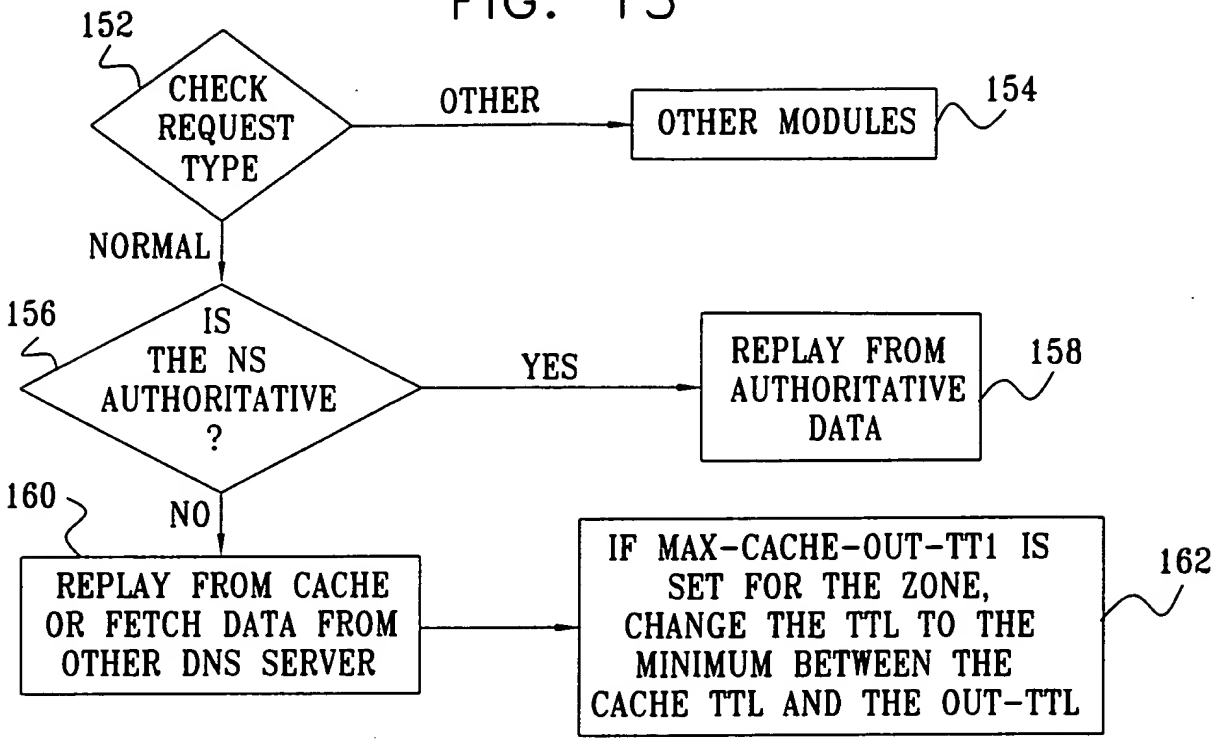

152
CHECK REQUEST TYPE
OTHER
OTHER MODULES
154
NORMAL
156
IS THE NS AUTHORITATIVE ?
YES
REPLAY FROM AUTHORITATIVE DATA
158
160
NO
REPLAY FROM CACHE OR FETCH DATA FROM OTHER DNS SERVER
IF MAX-CACHE-OUT-TT1 IS SET FOR THE ZONE, CHANGE THE TTL TO THE MINIMUM BETWEEN THE CACHE TTL AND THE OUT-TTL
162

FIG. 16

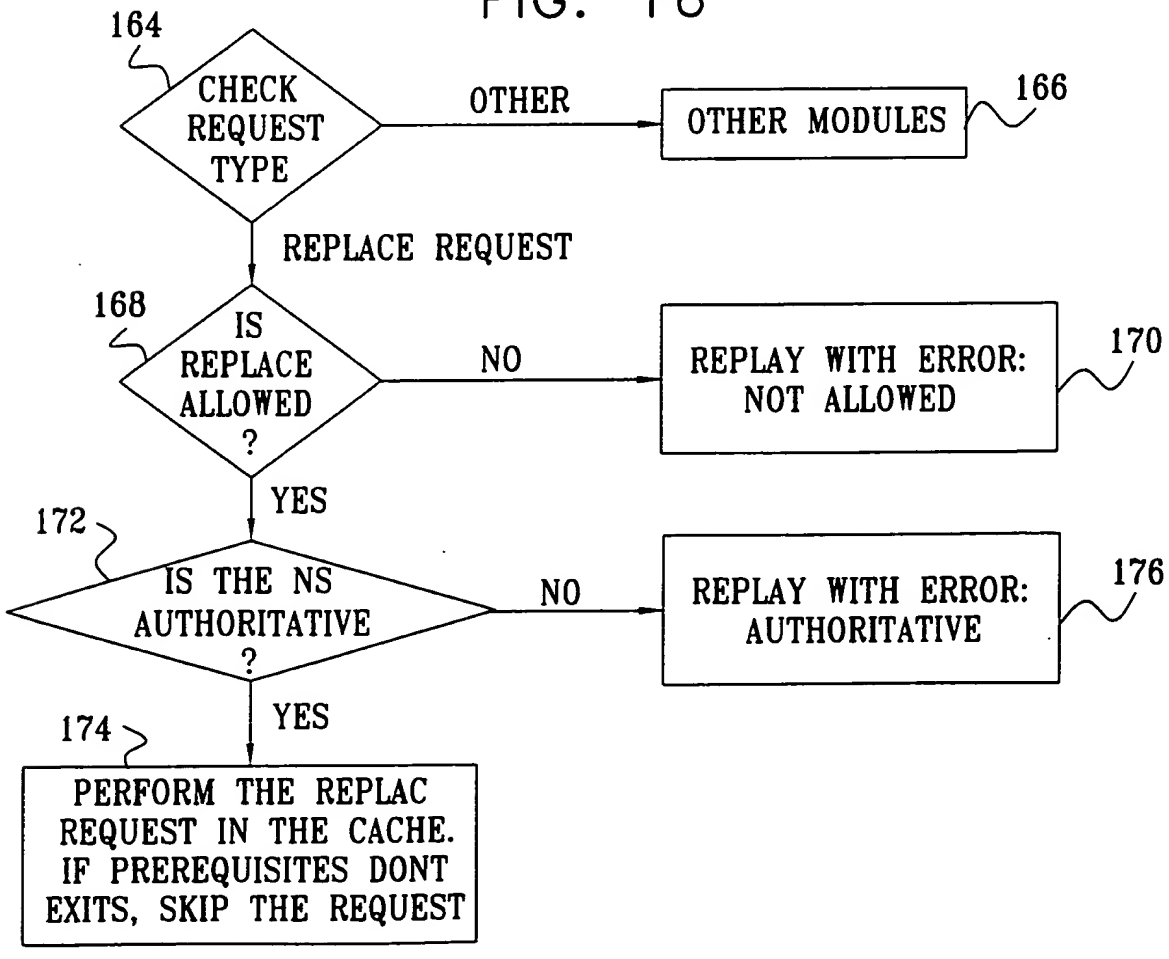

164
CHECK REQUEST TYPE
OTHER
OTHER MODULES
166
REPLACE REQUEST
168
IS REPLACE ALLOWED ?
NO
REPLAY WITH ERROR: NOT ALLOWED
170
YES
172
IS THE NS AUTHORITATIVE ?
NO
REPLAY WITH ERROR: AUTHORITATIVE
176
YES
174
PERFORM THE REPLAC REQUEST IN THE CACHE. IF PREREQUISITES DONT EXITS, SKIP THE REQUEST

FIG. 17

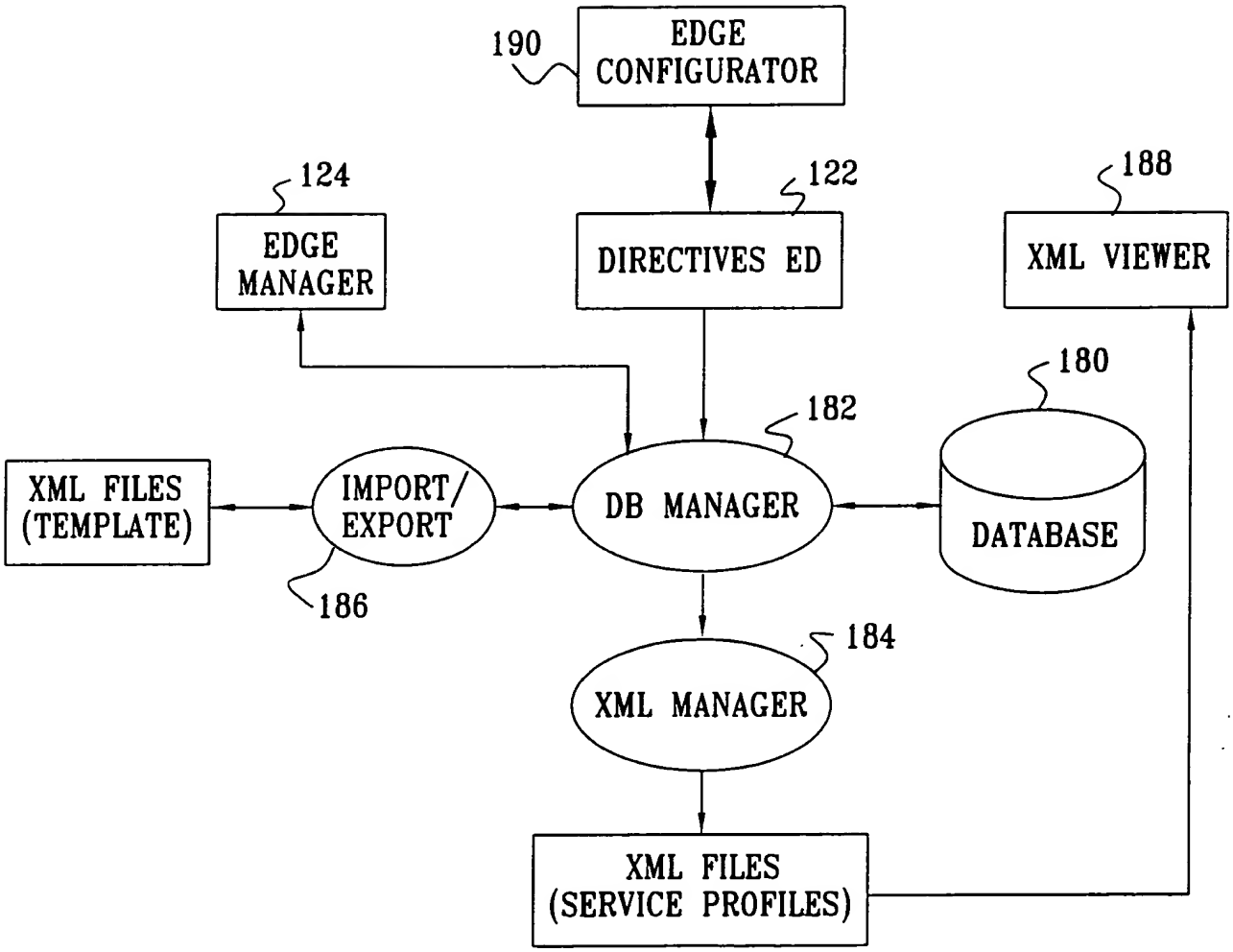
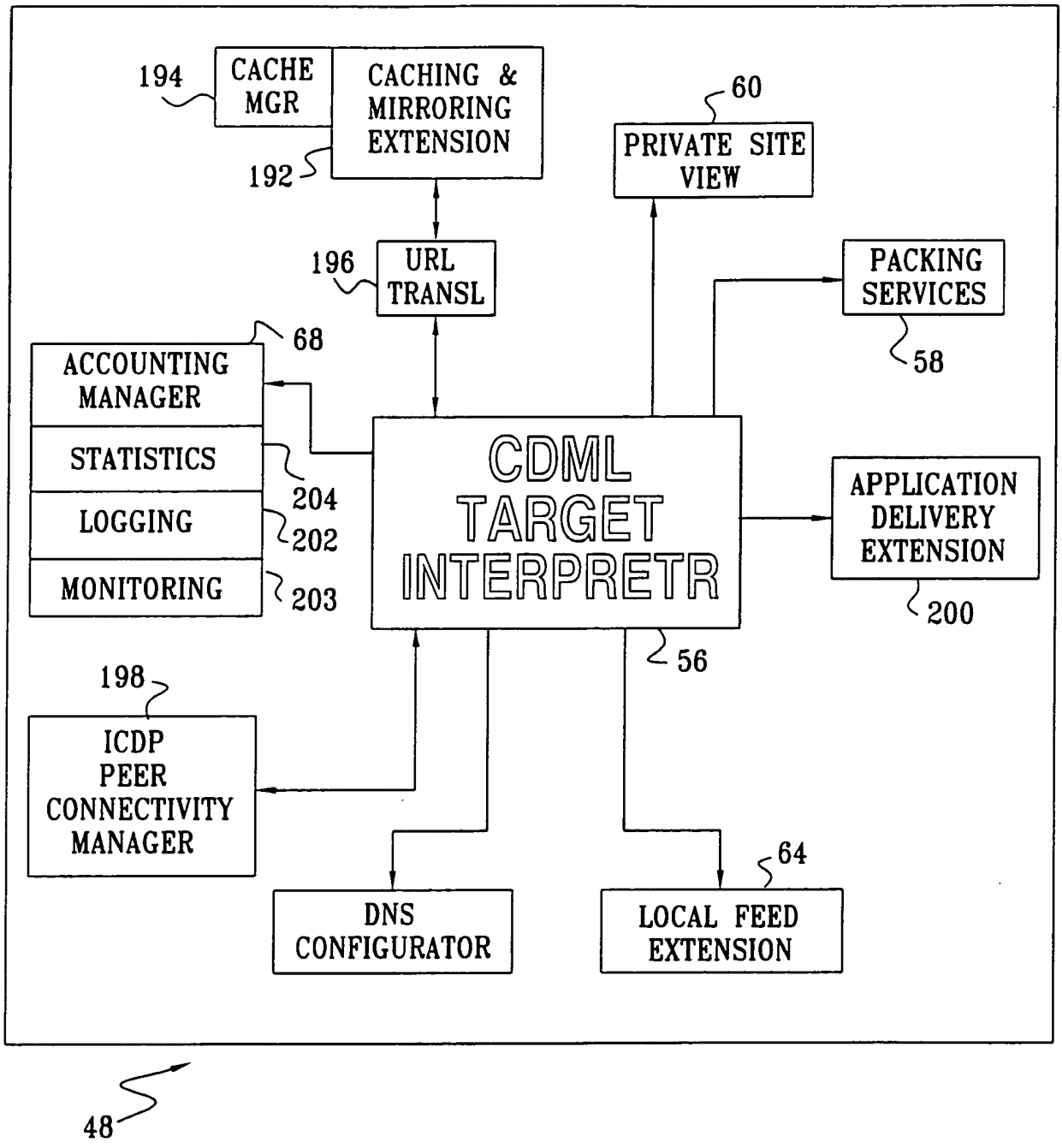

190
EDGE CONFIGURATOR
124
EDGE MANAGER
122
DIRECTIVES ED
188
XML VIEWER
180
182
XML FILES (TEMPLATE)
IMPORT/ EXPORT
DB MANAGER
DATABASE
186
184
XML MANAGER
XML FILES (SERVICE PROFILES)

FIG. 18


194
CACHE MGR
CACHING & MIRRORING EXTENSION
192
60
PRIVATE SITE VIEW
196
URL TRANSL
PACKING SERVICES
58
68
ACCOUNTING MANAGER
STATISTICS
204
LOGGING
202
MONITORING
203
CDML TARGET INTERPRETR
APPLICATION DELIVERY EXTENSION
200
56
198
ICDP PEER CONNECTIVITY MANAGER
64
DNS CONFIGURATOR
LOCAL FEED EXTENSION
48